2002/022

Application No.: 10/647,895

Docket No.: 4605-001

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-14. Canceled

- 15. (Currently amended) A water craft adapted to be propelled comprising a water pumping arrangement including a sheath carried by the water craft, the sheath including a propeller adapted to be turned, the sheath, water craft and propeller being arranged for causing the propeller while turning and while the water craft is moving forward in a body of water to (a) suck water from the body of water into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbles to be induced in the water above the another opening.
- 16. (Currently amended) The water craft of claim 15 wherein the sheath and propeller are arranged so the propeller is adapted to turn about an axis tilted at an angle in the range of 60° to 90° relative to the surface of the body of water while the water craft is moving forward in the body of water.
- 17. (Currently amended) The water craft of claim 15 wherein the water pumping apparatus arrangement includes a plurality of the sheaths each including a propeller adapted to be turned, the sheaths, water craft and propellers being arranged for causing the propellers while turning and while

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the water craft is moving forward in the body of water to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbled to be induced in the water above the another opening.

18. (Currently amended) A water craft adapted to be propelled comprising a water pumping arrangement including a sheath carried by the craft, the sheath including a propeller adapted to be turned; the sheath, water craft and propeller being arranged for causing the propeller while turning to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbles to be induced in the water above the another opening, the water pumping arrangement including a plurality of the sheaths each including a propeller adapted to be turned; the sheaths, water craft and propellers being arranged for causing the propellers while turning to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbled to be induced in the water above the another opening; The water eraft of claim 17 wherein one of the sheaths is sheath being positioned so that the propeller thereof is adapted to turn about an axis that is inclined relative to the

water surface at an angle that is substantially less than the inclination angle of propellers of others of the sheaths[[,]]; the sheaths and propellers being arranged for causing the water forced by the propeller through the another opening of said one sheath to be propelled in the propelled direction of the sheaths and interacting with water forced through the another opening of at least one of the other sheaths located in front of the one sheath so the water propelled from the one sheath pushes forward water propelled from the at least one of the other sheaths.

- 19. (Currently amended) The water craft of claim 18 wherein the outlets other openings are about four to six inches below the water surface.
- 20. (Currently amended) The water craft of claim 15 wherein the outlets are another opening is arranged to be maintained during steady state operation of the propellers about four to six inches below the water surface while the water craft is moving forward in the body of water.
- 21. (Currently amended) The water craft of claim 15 wherein the inlet at least one opening is arranged to be maintained during steady state operation of the propellers about 24 to 30 inches below the water surface while the water craft is moving forward in the body of water.
- 22. (Currently amended) The water craft of claim 15 further including a first structure for carrying a plurality of the sheaths on opposite sides of and outboard of the craft.
- 23. (Currently amended) The water craft of claim 22 wherein the <u>first</u> structure includes a boom arrangement for carrying the plural sheaths.
- 24. (Currently amended) The water craft of claim 23 wherein the boom arrangement is pivotable relative to a longitudinal axis of the water craft, the boom arrangement when pivoted causing for enabling the boom arrangement to be stowed on the craft without extending over the

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sides of the craft while the craft is being stowed or towed.

25. (Currently amended) The water craft of claim 22 further including a second structure for carrying at least one of the sheaths forward of the forward end of the craft.

26. (Currently amended) The water craft of claim 25 wherein the second structure is pivotable relative to the longitudinal axis of the craft-between the first and second structures.

27. (Currently amended) The water craft of claim 25 further including a third structure for carrying a further one of the sheaths between the first and second structures.

28. (Currently amended) The water craft of claim 27 wherein the third structure is arranged for carrying carries the further one of the sheaths approximately along a longitudinal center axis of the craft.

29. (Currently amended) The water craft of claim 28 wherein the first and second structures are arranged for carrying the sheaths thereof so longitudinal axes of the sheaths thereof and drive shafts of the propellers thereof are generally vertically disposed and the third structure is arranged for earrying carries the further sheath so longitudinal axes of the sheaths thereof and drive shafts of the propellers thereof are generally horizontally disposed, the second and third structures being arranged for causing water propelled from the further sheath to be pushed forward of the craft and incident on water propelled from at least one sheath adapted to be on the second structure.

30. (Currently amended) A water craft adapted to be propelled comprising a water pumping arrangement including a sheath carried by the craft, the sheath including a propeller adapted to be turned; the sheath, water craft and propeller being arranged for causing the propeller while turning to (a) suck water from the body into the sheath interior via at least one

opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbles to be induced in the water above the another opening, a first structure for carrying a plurality of the sheaths on opposite sides of and outboard of the craft; a second structure for carrying at least one of the sheaths forward of the forward end of the craft, a third structure for carrying a further one of the sheaths between the first and second structures; the third structure being arranged for carrying the further one of the sheaths approximately along a longitudinal center axis of the craft; the first and second structures being arranged for carrying the sheaths thereof so longitudinal axes of the sheaths thereof and drive shafts of the propellers thereof are generally vertically disposed; the third structure being arranged for carrying the further sheath so longitudinal axes of the sheaths thereof and drive shafts of the propellers thereof are generally horizontally disposed, the second and third structures being arranged for causing water propelled from the further sheath to be pushed forward of the craft and incident on water propelled from at least one sheath adapted to be on the second structure, flexible vertically extending connectors between the sheaths and the first, second and third structures; and The water eraft of claim 29 further including flexible vertically extending connectors between the sheaths and the first, second and third structures.

- 31. (Original) The water craft of claim 15 wherein the water craft is a catamaran.
- 32. (Currently amended) The water craft of claim 15 further including a structure for-carrying at least one of the sheaths forward of the forward end of the craft.
 - 33. (Currently amended) The water craft of claim 31 32 wherein the structure is pivotable

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relative to the longitudinal axis of the craft-between the first and second structures.

- 34. (Original) The water craft of claim 15 further including a vertically extending flexible connector between the sheath and the craft.
- 35. (New) The water craft of claim 15 further including a grid arrangement on the sheath for substantially preventing vegetable and marine material in the body of water from flowing through at least one of the openings and fouling the propeller.
- 36. (New) The water craft of claim 35 wherein the grid arrangement includes separate first and second grids respectively positioned to prevent vegetation and marine material from passing through at least one opening in the sheath and another opening in the sheath.
- 37. (New) The water craft of claim 36 wherein one of the grids is arranged to selectively provide access to the propeller from outside the sheath.
- 38. (New) The water craft of claim 37 wherein the grid for providing access is pivotable with respect to a longitudinal axis of the sheath.